### REMARKS

The purpose of this submission is to present claim amendment and arguments in response to the positions taken by the Examiner in the Final Office Action dated December 27, 2005. A request for continued examination under Rule 114 is also being filed herewith to secure withdrawal of the finality of the pending Office Action, and entry of the amendments and arguments into the record of this application

### I. Interview Proceedings

Preliminarily, this opportunity is taken to thank the Examiner for the many courtesies extended at a personal interview conducted on March 21, 2006. The undersigned was accompanied by two representatives of applicants' corporate assignee, namely, Kathleen Ewing and Gordon Kotora. At the interview the pending rejections under 35 U.S.C. §§ 102, 103 and 112 as set forth in the Final Office Action were discussed. A more detailed recounting of the interview proceedings is interwoven into the treatment of the pending rejections hereinafter.

#### II. Formal Rejection/Objection

During the interview The Examiner advised that upon reconsideration the rejection of claims 100 and 101 under 35 U.S.C. § 112, second paragraph, for recitation of "in effective amount" is being withdrawn. Accordingly, the rejection is understood to be moot, and is not addressed here any further.

As to the objection for omission of the article "an" from "in effective amount", the Examiner's attention is invited to amended claims 100 and 101, wherein the modified language (consistent with the undersigned's offer at the interview) now reads "an effective amount". It is therefore believed that the objection is obviated.

### III. Prior Art Rejections

Consideration at the interview of the various rejections of claims 58-101 under 35 U.S.C. §§ 102 and 103 was allocated into three basic parts: colorant compositions and methods of making same in claims 58-77; paint and methods of making same in claims 78-99; and copolymer surfactants in claims 100 and 101.

# A. Colorant Compositions/Related Methods

At the interview, the Examiner confirmed here concurrence that none of the Sonnabend, Hawe et al., Chang et al., and Robinson patents discloses a colorant composition which is a precursor component for the paint of claims 78-99. The threshold issue on the point was whether the claim language expression "colorant composition" is adequate to exclude paints as disclosed in certain of the prior art references relied upon by the Examiner. More specifically, the Examiner contended that (1) "colorant composition" is sufficiently broad to include not only precursor materials used for making aqueous latex paint, but also the paint itself, and (thus) (2) the claim language does not exclude paints anticipated or obvious from the Sonnabend, Hawe et al., Chang et al. and Robinson patents, optionally in view of pigments and pigment dispersions said to be disclosed in the Carpenter et al. patent. However, applicants' representatives countered that the application makes clear the expression "colorant composition" means an ingredient of a paint – i.e., a component which in combination with a further component called a "tint-base" forms said paint. (See, e.g.: page 1, lines 11-12; page 5, lines 18-20; page 5, line 30, to page 6, line 1; and page 20, lines 8-10, of the application.) It was submitted that since pursuant to the application the disclosed paint contains not only "colorant composition" but also "tint-base", the "colorant composition" cannot be the paint, and instead is only an ingredient of the paint. Thus, it was correspondingly submitted that in the context of the application the term

"colorant composition" excludes paint of which it is only a precursor component. On this basis alone, the claim language was argued to distinguish over the patents relied upon by the Examiner.

That said, applicant's representatives offered a number of claim language amendments in order to eliminate any room for questioning the scope of the claim language. In this regard, claim 58 has been modified to add wording confirming that the colorant composition is "suitable as a precursor to an aqueous latex paint" and that such colorant composition "consists essentially of": pigment; water; and a copolymer surfactant comprising the recited propositions of unsaturated carboxylic acid or anhydride, unsaturated vinyl monomer, and surfactant monomer. Additionally, claim 58 has been modified to specify that the claimed colorant composition "is capable of causing the Stormer low-shear viscosity of an aqueous latex paint formed of a mixture comprising said composition and a tint-base . . . ", rather than that "when incorporated in a paint formed of a mixture comprising said composition and a tint-base causes the Stormer low-shear viscosity of said paint . . . ". This solidifies applicants' contention that the claimed colorant composition intrinsically has viscosity stabilization properties, instead of leaving the claim open to the Examiner's interpretation that the language "when incorporated . . . " is too conditional to be countenanced.

Accordingly, as submitted at the interview regarding the alleged prior art references:

The claim amendments make clear that the colorant composition defined in claim 58 is *not* the paint itself, but rather a precursor component of a paint, which when utilized in the formulation of a paint will yield a product with a Stormer low-shear viscosity within  $\pm$  10% of the tint-base component's. Furthermore, due to the claim language's prescription of a colorant composition "consisting essentially of" specified pigment, water and copolymer surfactant

components, the claim excludes the patented paint compositions relied upon by the Examiner as basis for the § 102/103 rejections. The reason is that, under prevailing law, the expression "consists essentially of" causes the scope of the claim to exclude any element which would materially affect the basis and novel characteristics of the invention. In accordance with In re

Herz, 537 F.2d 549, 190 USPQ 461 (C.C.P.A. 1976), and In re Garnero, 412 F.2d 276, 162

USPQ 221 (C.C.P.A. 1969), copies of which were furnished to the Examiner at the interview, this exclusionary effect extends to components or features which if deemed within the claim scope would be inconsistent with the essence of the invention.

The essence of the colorant composition defined in claim 58 is that it functions as (2) precursor to a paint, which paint is made by mixing the colorant composition and tint-base. A latex paint composition must have adequate latex to form a latex film upon drying. The latex to form this film is typically provided in the tint-base that is combined with the colorant composition; the colorant does not itself contain a sufficient amount of latex to form the film, and if it did there would be an overabundance of latex upon combination with the tint-base. The paints of the patents relied upon by the Examiner do contain a sufficiently large amount of latex so that the necessary film can form. Just as in Garnero, wherein recitation of "consisting essentially of" was held to exclude a binder component which if present would have been inconsistent with the invention's essence – that particles are held together without any additional material – the terminology "consists essentially of" in claim 58 excludes the paints of the cited patents because they contain large amounts of latex which are inconsistent with the precursor nature of the colorant composition defined in the claim. It follows that claim 58 as amended excludes any aqueous paint compositions as may be disclosed in the patents relied upon by the Examiner.

- Since none of the cited patents teaches the colorant composition defined in claim 58, i.e., a paint-precursor colorant composition having viscosity stabilization properties, none of them anticipates claim 58, or any of the "colorant composition" claims 59, 68 and 77 depending therefrom. Moreover, since none of the patents cited by the Examiner teaches a paint-precursor colorant composition having viscosity stabilization properties, it would not have been obvious to one of ordinary skill in the art to fashion from those teachings the colorant composition of claim 58 (or the colorant composition of claims dependent therefrom) which colorant composition is designed to exhibit viscosity stabilization properties.
- (4) Correspondingly, claims 60-67 and 69-76 which are directed to a method of making colorant compositions as discussed above are allowable. The claimed method is not anticipated by the cited patents because none of them teaches a paint-precursor colorant composition having viscosity stabilization properties, and thus none of them can teach a method for making such composition. Therefore, there is no anticipation of the claimed method.

  Likewise, in the absence of any teaching concerning such paint-precursor colorant composition or method, there was no motivation to devise such a method and thus it would not have been obvious.

# B. <u>Paints/Related Methods</u>

At the interview the Examiner renewed her contention that, notwithstanding the prescription in the claim language for formulation utilizing a colorant composition, the aqueous latex paint defined in claims 78-87 and 89-98 is not substantially different from the paints covered by the patents relied upon by the Examiner. However:

(1) Claims 78-99 have now been amended, in accordance with the Examiner's suggestion at the interview, to depend (directly or indirectly) from claim 58, so that the claims

defining applicants' innovative paint and the method of making same correlate with the colorant composition claim language.

- (2) As applicants' representatives submitted during the interview: the "paint" defined in the claims identified above, because it is made by combining a tint-base and the colorant composition of the invention, is materially different from the aqueous latex paints covered by the cited patents. More specifically, the claimed paint can be made up at the point of sale from a stock tint-base and one (or more) of a relatively small group of standard colorant compositions, while maintaining viscosity stability of the paint being formulated. This permits preparation of any one of thousands of different colors to the customer's specification, by means of varying the constituent amounts of colorant composition to achieve the particular color selected. Preparation of the entire range of colors in advance at the factory is simply impractical. The process limitation requiring paint formulated from a precursor colorant composition thus translates into a significant real-world marketplace advantage such that it distinguishes the claimed paint over paints formulated from all the components in a unitary operation, or paint made with an aqueous dispersion of colorant lacking viscosity stabilization properties. Pre-mixed paints shipped from the factory cannot compete favorably. However, nothing more than paint made up in a unitary operation, or paint which is not made from a viscosity stabilizing colorant component, is fairly suggested by the cited patents.
- (3) Additionally, in response to the Examiner's request for identification of a further difference between the claimed paint and paint covered by the cited patents, applicants now submit the following. The paint of the invention is made by pre-combining colorant (e.g., pigment) and copolymer surfactant in a precursor colorant composition. This facilitates bonding between the colorant and the copolymer surfactant to get the full surfactant effect, and as a

consequence good performance properties, for instance, color transfer, color rub-up, color development and viscosity stability (of the paint in its liquid form, the claim language encompassing paint in both its liquid and dry forms). In contrast, the hypothetical combination of colorant and copolymer surfactant in the full paint environment, which is diluted by the presence of other surfactant, dispersant, thickener, solvent, or the like materials, is less favorable. One or more of the other substances in the paint will tend to interfere with desired bonding between the colorant and copolymer surfactant, with the result that the surfactant effect of the copolymer surfactant is impeded and color development falls short of what can be achieved with the claimed invention. Therefore, paint made according to the claimed invention is superior to and different from paints according to the cited patents.

(4) As pointed out at the interview by applicants' representatives, the law is clear that a process limitation which imparts a difference in the product made in accordance with such process limitation is sufficient to distinguish the product over the prior art. The claimed paint is advantageously different from that of the cited patents because the former is more desirable in the marketplace and confers a sales advantage. Additionally, due to the process limitation divergence of the paint claims from the cited patents, the paint of the claimed invention exhibits a product difference in the bonding of the colorant to the copolymer surfactant, and in the correlative color development of such paint in the dried state (i.e., as a dry film on a surface). The patents fail to disclose this process limitation, i.e., paint made by combining a tint-base with a colorant composition having viscosity stabilization properties, and thus there is no anticipation. Moreover, the cited patents' teachings would not have motivated one of ordinary skill in the art to devise such a paint, since none of the patents discusses a colorant composition having viscosity stabilization properties, not to mention making paint therefrom.

(5) For the very same reasons, the cited patents neither anticipate nor would not have made obvious the method of making paint defined in claims 88 and 99. Furthermore, since the colorant composition mixed with the tint-base component to make the paint is itself novel and nonobvious (see preceding Section A), the method of using the colorant composition to make paint logically must likewise be novel and nonobvious.

## C. <u>Copolymer Surfactants</u>

Concerning the rejection of claims 100-01 under §103 over the Robinson patent, at the interview, applicants' representatives invited the Examiner's attention to the opinion in In re Ruschig, 343 F.2d 965, 145 USPQ 274 (C.C.P.A. 1965). There, the court considered whether it was proper to dissect teachings of examples in a prior art patent" into their chemical R(1), R(2), and R(3) components, and reassemble those components in all possible combinations to see whether any such combination, thus synthesized, falls within an appealed claim." Id. The court disapproved that rationale, holding improper the fashioning of "a specific description of compounds within [application] claims 1 and 2... out of the [prior art] Martin [patent] disclosure". Anticipation was deemed foreclosed because selection of "p-chloro and p-bromo for R... and ethyl or isoamyl for R(2) to create, ex post facto, four undisclosed specific compounds out of a possible 259" fell short of the minimum description in Martin that would constitute effective prior art. Additionally, the court ruled the claimed invention would not have been obvious from the Martin patent because

there is no disclosure or description in it of any of appellants' compounds and, a fortiori, no description of their properties but at most disclosures of processes by which some of them might be made . . . [such that Martin is] no closer to appellants' compounds than a next adjacent homolog or an analogous compound would be and contains no more information about properties of the compounds . . . [than other prior art of record].

Similarly in the present case: the permutations which fall within the formula disclosed in the Robinson patent are manifold (certainly greater than 259); there are no compounds specifically disclosed in Robinson which fall within application claims 100 and 101; the compounds expressly disclosed are no closer to the claimed compounds that a next adjacent homolog or analogous compound; and there is no mention of the viscosity stabilization properties of a colorant composition containing any of the Robinson compounds. Therefore, under the Ruschig case, the rejection of claims 100 and 101 over Robinson for anticipation or obviousness is unwarranted.

## D. Rejections Untenable

Since the teachings of the Sonnabend, Hawe et al., Chang et al., Robinson and Carpenter et al. patents cited by the Examiner are neither sufficient to anticipate the claimed subject matter nor adequate to have made it obvious, it is requested that the rejections of the claims under 35 U.S.C. §102 and 103 be reconsidered and withdrawn.

#### E. Other References

While the Examiner has not relied upon Rohn and Haas U.S. Patent No. 6,337,366 (though it is of record and mentioned in the application), during the interview applicants' representatives noted to the Examiner that the patent refers to technology involving a composition which contains components that confer viscosity stabilization. Applicants representatives also brought to the Examiner's attention that there are additional Rohm and Haas patents relating to technology involving components that confer viscosity stabilization. This opportunity is taken to supplement the present proceedings with the particulars of the other Rohm and Haas patents:

- U.S. Patent No. 6,602,948, entitled "Method of Reducing Syneresis in Aqueous Composition", granted August 5, 2003 (the '948 Patent);
- U.S. Patent No. 6,812,278, entitled "Method of Improving Viscosity Stability upon Addition of an Aqueous Tinting Composition", granted November 2, 2004 (the '278 Patent);
- U.S. Patent No. 6,887,928, entitled "Method of Improving Viscosity Stability upon Addition of a Colorant Component", granted May 3, 2005 (the '928 Patent).

An Information Disclosure Statement is submitted herewith in respect of the latter three patents. As indicated to the Examiner at the interview, none of these references takes the same approach as the claimed invention of the instant application. More specifically: The '366 patent does not teach a compositionally defined group of copolymer surfactants, but rather functionally prescribes a mixture of at least one multiphobe and at least one monophobe; the multiphobe having at least one hydrophilic segment and at least two hydrophobic segments, the average molucular weight of the multiphobe segment being greater than 2000, and the monophobe having at least one hydrophilic segment and only one hydrophobic segment, the average molecular weight of said monophobe hydrophilic segment being at least half that of the multiphobe hydrophilic segment. Similarly, the '948 Patent does not teach a compositionally defined group of copolymer surfactants but rather functionally prescribes a high molecular weight monophobe having at least one hydrophilic segment and only one hydrophobic segment, optionally in combination with a multiphobe. The '278 Patent does not teach a compositionally defined group of copolymer surfactants, but instead functionally prescribes a select dispersing resin having a specified Hansch parameter and a specified acid number. The '928 Patent does not teach copolymer surfactants which comprise ethylenically unsaturated carboxylic acid or anhydride monomer, an ethylenically unsaturated vinyl monomer, and a surfactant monomer, but U.S.S.N. 10/728,599

rather an additive selected from associative thickeners and macromolecular compounds having a hydrophobic cavity.

# **Conclusion**

In view of the foregoing amendments and remarks, withdrawal of the pending rejections and allowance of the application with claims 58-101 are requested.

Respectfully submitted,

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